REMARKS

Claim 1 has been cancelled without prejudice and amendment made to claims 36, 39, 46, 48, 50, 57, 59, 61, 68, 69, 73, and 74, to clarify that the subject matter identified by the claim limitations is in fact statutory, responsive to the rejection under 35 USC section 101.

While it is understandable that the previous wording of the claims may have been interpreted very broadly to encompass mere manipulation of an abstract idea, with the additional limitations, it is clear to the applicant that such an interpretation is no longer sustainable in light of this amendment.

The invention teaches how to evaluate information available from a new form of data structure, as well as to particular unique forms of the structure when existing within a computer accessible memory. This general structure was heretofore (with the exception of applicant's own previous work and applications) not recognized nor understood nor enabled in any way known to the inventor. The ability to evaluate information in this structure is limited in the amended claims to computing devices using processes which themselves have access to memories capable of keeping data in the interlocking trees datastore structural form described. The structure in memory is identified as having an interlocking trees datastore constructed of pointers and nodes, the nodes themselves being limited to having certain pointer information arranged by type of node and pointer. The "value" information of the sort that could be representing for example by an ASCII "A" is located specifically in elemental root nodes. Accordingly the claims are now limited to such structures and their use in accord with the method limitations of the various claims, these methods being operated by computer processes and producing an output of a probability that can be best described in terms related to the structure. The particular methods of manipulation of this data are not known from any other source, nor to the inventor's knowledge, useful with any other form of datastore or database, and the output provides for a substantial improvement over use of data in other data formats. The computer-enabled process that accesses the structure in memory provides information

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about the knowledge in the structure by traversing the structure in various structured steps (see claims 36, 46, and 57 for examples and see their dependents). For example, using any current database, one cannot evaluate the information in it in the ways taught by the applicant, and thus, without building tables and rebuilding the database structure itself in accord with the tables, such evaluation of a generalized database structure will not yield the quality of information that the applicant gets out of this single, non-table-based structure.

Thus, the examiner's statement that, "No abstract idea can be used, as a practical matter, without establishing and substituting values for the variable expressed therein" is inapplicable to the amended claims because a method for evaluating what is in a datastore is *ab initio* the *reason de etre* for a datastore. What the invention enables is a better way (actually several better ways) to get knowledge out of a particular kind of datastore, based on whatever the user or designer of that datastore may want at any time in the future, WITHOUT the necessity of designing and building new tables to enable some previously unthought query, provided only that the datastore has the structure in a computer memory that supports the particular step wise processes for doing so that are claimed. The concepts of context and focus are defined in detail by process steps that provide the several recipes for gaining this knowledge from the datastore. The initial inputting of a selection for a context (which is really a set of pathways of the structure) is done by providing that input to the process that accesses the datastore, based on that selection.

Note that where the claims identify that the selection can employ logical expressions (as in dependent claims such as claim 38 for example), this merely implies that the selection input for the context can be of more than one value to establish the context, from which the context count may eventually be determined. Thus if one were looking for orders in a Burger King transaction database (that was, of course, transformed into an interlocking trees datastore structure such as the ones the inventors use here), where in those orders the customer may have wanted both fish and chips, one might ask for both fish AND chips to appear in the same order, as part of the context determining operation for the process to execute. Clearly then it does not render the claims

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mathematical algorithm claims simply because they use a logical expression such as "AND".
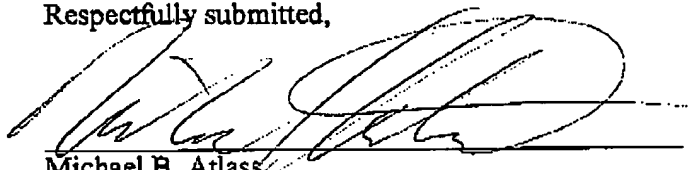
Generally, the inventor believes that concepts taught and claimed in this patent application provide sufficient teachings to relegate much of the previous database technology obsolete. Just the business intelligence applications of database technology alone will improve significantly using this technology as it avoids the problem of locking one into a data structure before one knows exactly what kinds of data one will want. See for background this article in CIO magazing:

http://www.cio.com/archive/091503/smart.html

It is believed that by removing the pre-existing requirement for designing any structure to enable new queries, and allowing through the use of the pre-ordained structural design for the information that is identified and claimed in a more limited form in this application, and more generally in the inventor's previous US Patent Application 10/385,421, these designs and the discovery and use of the methods claimed for gaining knowledge of the contents of the datastore should clearly survive scrutiny under section 101, as they are substantial improvements in the useful arts.

Accordingly, and respectfully, reconsideration and withdrawal of the rejection is requested, and allowance of all claims is respectfully solicited.

Dated: May 5, 2005 Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Jane C. Mazzagatti   : Group Art Unit: 2161

                                        : Examiner: Al Hashemi, Sana A.

Customer No.: 27276

Serial No.: 10/666,382   : Confirmation No.: 8502

Filed: September 19, 2003   : Attorney Docket No.: TN188A

For: SYSTEM AND METHOD FOR STORING AND ACCESSING DATA IN AN INTERLOCKING TREES DATASTORE

Mail Stop Non-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

FIRST RESPONSIVE AMENDMENT

This is responsive to the official Patent Office Communication of 2-10-05, rejecting all remaining claims 36-75 under section 101.

Claim 1 is cancelled, without prejudice, responsive to the restriction requirement.

The examiner noted within the body of the action that there was a one-month time period for reply. Accordingly, please consider this a request for a one-month extension of time to make this response timely. Note however that the cover page indicated a three-month reply period, and that this apparent extension of time should be honored without requirement for payment, as the action was docketed for a three month reply based on the cover page.

Please charge any additional fees required to maintain pendency of this application or credit any overpayment to Deposit Account No. 19-3790.

A listing of claims follows on the next page, and remarks with discussion of the amendment and rejection are on subsequent pages.